FACT SHEET HEPATITIS B

Information for Pregnant Women and their Health Care Providers

Who should be tested for hepatitis B?

All pregnant women should be tested routinely for HBsAg during an early prenatal visit (e.g., first trimester) in each pregnancy, even if they have been previously vaccinated, tested, or previously HBsAg positive.

In special situations, an additional HBsAg test can be ordered during the third trimester. This should be considered if the patient develops symptoms, is exposed to HBV, or engages in high risk behavior (e.g., having had more than one sex partner in the previous 6 months, having a HBsAg positive sex partner, evaluation or treatment for a sexually transmitted disease [STD], or recent/current injection-drug use).

Are some people more likely to have hepatitis B than others?

Residents and descendents of certain countries and regions of the world are more prone to HBsAg infection as the disease was, or currently is, endemic. Patients from the following countries/regions may have an increased risk for HBsAg infection: Afghanistan, Africa, rural Alaska, Albania, Bangladesh, Bosnia and Herzegovina, Bulgaria, Cambodia, China, Eastern Europe, Haiti, Hawaii, India, Indonesia, Iran, Iraq, Korea, Laos, Malaysia, the Middle East, Myanmar, Pakistan, the Pacific Islands, Philippines, Romania, the former Soviet Union, South America's Amazon Basin, Sri Lanka, Syria, Taiwan, Thailand, or Vietnam.

What if a patient was not tested before they arrive at the hospital for delivery?

Women who were not screened prenatally, those who engage in behaviors that put them at high risk for infection (see high risk behaviors on the previous page) and those with clinical hepatitis should be tested at the time of admission for delivery. Women admitted for delivery without documentation of HBsAg test results should have blood drawn and tested as soon as possible after admission. While test results are pending, all infants born to women without documentation of HBsAg test results should receive the first dose of single-antigen hepatitis B vaccine within 12 hours of birth.

Care of infants born to HBsAg-positive mothers:

If the mother is determined to be HBsAg positive and the child weighs 2,000 grams (4.4 lbs) or more at birth:

- Give infant HBIG and HBV vaccine within 12 hours of birth
- Continue vaccine series on an accelerated schedule beginning at 1-2 months of age and completing the 3 dose series by 6 months
- Check quantitative anti-HBs and HBsAg after completion of vaccine series at 9-12 months of age.

If the mother is determined to be HBsAg positive and the child weighs 2,000 grams (4.4 lbs) or less at birth:

- Give infant HBIG and HBV vaccine within 12 hours of birth
- Continue vaccine series on an accelerated schedule beginning at 1-2 months of age and completing the 3 dose series by 6 months
- Do not count birth dose as part of vaccine series. The second dose of HBV vaccine should be given when the infant is chronologically one month of age regardless of weight. The third dose should be administered one month following the second dose, and the fourth dose should be given six months following the second dose. Thus, a total of four doses of HBV vaccine are recommended in this circumstance. Immunize with 4 doses of vaccine.
- Check quantitative anti-HBs and HBsAg after completion of vaccine series at 9-12 months of age

Care of infants born to HBsAg status-unknown mothers:

If the mother's HBsAg status is unknown and the child weighs 2,000 grams (4.4 lbs) or more at birth:

- Test mother for HBsAg immediately after admission
- Give infant HBV vaccine within 12 hours of birth
- Give infant HBIG (within 7 days) if mother tests HBsAg positive. If the mother's HBsAg status remains unknown at the time of discharge it may be appropriate to provide HBIG to the child prior to release from the hospital. Efforts should be made to determine HBsAg status prior to discharge, but in the absence of this information and faced with a situation where it is uncertain the child will receive appropriate follow-up, providing HBIG may be appropriate.
- Continue vaccine series beginning at 1-2 months of age according to the recommended schedule based on mother's HBsAg status

If the mother's HBsAg status is unknown and the child weighs 2,000 grams (4.4 lbs) or less at birth:

- Test mother for HBsAg immediately after admission
- Give infant HBV vaccine within 12 hours of birth
- Give infant HBIG if mother tests HBsAg positive OR if mother's HBsAg result is not available within 12 hours of birth
- Do not count birth dose as part of vaccine series, immunize with 4 doses of vaccine
- Continue vaccine series beginning at 1-2 months of age according to the recommended schedule based on mother's HBsAg status
- Check quantitative anti-HBs and HBsAg after completion of vaccine series at 9-12 months of age

Care for HBsAg negative mothers:

If the mother is determined to be HBsAg negative, the vaccine series should be completed according to the Recommended Childhood and Adolescent Immunization Schedule (birth, 1-2, and 6-18 months).

What if there are extended intervals between doses of vaccine?

All doses not violating the minimum intervals are valid. It is not necessary to restart the vaccine series if there is an extended interval between doses. The minimum interval between the first and second dose is 28 days. The minimum interval between the second and third dose is 2 months and 4 months from the first dose, as long as the third dose is given after 6 months of age.

Why should the infant have post vaccination serology?

Post-vaccination serology for infants born to HBsAg positive mothers is the method of confirming protection from HBV. Post-vaccination serology is a key component to case management of the child. Post-vaccination testing for HBsAg and quantitative anti-HBs should be performed after completion of the vaccine series 3 to 9 months following the final dose of hepatitis B vaccine (generally at the 12 month well-child visit, although encouraged to be performed earlier if applicable).

It is very important the provider order quantitative anti-HBs. Without ordering a quantitative anti-HBs, there is no way to determine the antibody concentration and thus determine if the infant is protected (greater than 10 mIU/mL) or needs further doses of vaccine (less than 10 mIU/mL).

Testing should not be performed before age 9 months to avoid detection of anti-HBs from HBIG administered during infancy. Anti-HBc testing of infants is not recommended because passively acquired maternal anti-HBc might be detected in infants born to HBV-infected mothers to age 24 months.

What is the follow-up for test results?

HBsAg-negative infants with anti-HBs levels equal to or greater than 10mIU/mL are protected and need no further medical management.

HBsAg-negative infants with anti-HBs levels less than 10mIU/mL should be revaccinated with a second 3-dose series (either using spacing of doses at 0, 2, and 4-month intervals or 0, 1, and 4-month intervals) and retested 1 month after the final dose of vaccine.

Infants who are HBsAg positive should receive appropriate follow-up including periodic evaluation for liver function.

What about others living in the same house as the HBsAg positive mother?

Other children in the home should have verified vaccination status and possible serologic testing.

Sex partners of HBsAg-positive persons should be counseled to use methods (e.g., condoms) to protect themselves from sexual exposure to infectious body fluids (e.g., semen or vaginal secretions) unless they have demonstrated immunity after vaccination (i.e., anti-HBs >10 mIU/mL) or previously infected (anti-HBc positive). Additionally, household contacts should be counseled to refrain from sharing household articles (e.g., toothbrushes, razors, nail clippers and files, or personal injection equipment) that could become contaminated with blood